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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/621,489	07/18/2003	Robert Louis Cobenc II	100110643	2048

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FORT COLLINS, CO 80527-2400

EXAMINER

GOFF II, JOHN L

ART UNIT	PAPER NUMBER
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1733

MAIL DATE	DELIVERY MODE
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09/19/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/621,489

Applicant(s)

COBENE, ROBERT LOUIS

Examiner

John L. Goff

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 15 June 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-29 and 31-44 is/are pending in the application.
- 4a) Of the above claim(s) 1-25, 29, 31 and 34-44 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 26-28, 32 and 33 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 15 December 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This action is in response to the amendment filed on 6/15/07.
2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Election/Restrictions

3. Newly amended claims 29, 31, 34, and 35 are directed to an invention that is independent or distinct from the invention of Group II - Species I (Figures 3A-3D) elected in the response to the restriction requirement filed 8/25/05 for the following reasons: Claim 29 as amended requires "wherein the clamping bodies are pivotable" described in the specification regarding Figures 4A-4D corresponding to Species II which was non-elected in the response to the restriction requirement filed 8/25/05. Since applicant has received an action on the merits for the elected invention, Group II - Species I, claims 29, 31, 34, and 35 are withdrawn from consideration as being directed to a non-elected invention.

Claim Rejections - 35 USC § 103

4. Claims 26-28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yamanaka (U.S. Patent 6,024,525) in view of Boss (U.S. Pre-Grant Publication 2001/0019691).

Yamanaka discloses a method of binding a plurality of sheets to form a book-like structure using a clamping apparatus. Yamanaka teaches the method comprises providing an assembly of plural sheets (307 of Figure 2A), providing a backed hot melt adhesive sheet (T of

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Figure 1), providing a translatable first contacting surface (702 of Figure 1) of a clamping jaw including a clamping body (702 of Figure 1) and a press (730 of Figure 1), providing a translatable second contacting surface (701 of Figure 1), contacting the translatable first contacting surface to the backed hot melt adhesive sheet located on a spine surface of the assembly of plural sheets wherein the spine surface is perpendicular to the planar surface of the assembly of plural sheets, applying force at least with the translatable second contacting surface to the planar surface in an area where the backed hot melt adhesive contacts the planar surface, and melting the backed hot melt adhesive sheet such that the adhesive flows into at least a portion of the assembly of plural sheets and forms the book-like structure after cooling (Column 4, lines 51-67 and Column 5, lines 41-53). Yamanaka is silent as to including within the clamping jaw (e.g. between the clamping body and press) an active cooling member. Boss discloses a method of binding a plurality of sheets to form a book-like structure using a clamping apparatus. Boss teaches the method comprises providing an assembly of plural sheets (14 of Figure 2) including an adhesive portion along the spine and planar surface of the assembly (12 of Figure 2), providing a clamping jaw (22 of Figure 2) comprising a press (26 of Figure 2), an actively cooled heat sink (30 of Figure 2), and a clamping body (28 of Figure 2), displacing the clamping jaw at a distance greater than the thickness of the assembly of plural sheets, translating the clamping jaw to apply pressure to the planar surface of the assembly of plural sheets, applying heat to the clamping body to melt the adhesive, and then withdrawing heat from the assembly of plural sheets and the clamping body through the actively cooled heat sink to form the book-like structure (Figure 2 and Paragraph 17). Boss teaches including the actively cooled heat sink within the clamping jaw allows rapid heating and cooling of the assembly of plural

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sheets and clamping body (Paragraph 17). It would have been obvious to one of ordinary skill in the art at the time the invention was made to include within the clamping jaw (e.g. between the clamping body and press) taught by Yamanaka an active cooling member such as an actively cooled heat sink as shown by Boss to allow rapid heating and cooling of the assembly, and thus, decrease the time required for binding.

Regarding the limitation of removing heat from the hot melt adhesive sheet from above a glass transition temperature of the hot melt adhesive to below the glass transition temperature of the hot melt adhesive, it is noted the adhesive of the backed hot melt adhesive sheet taught by Yamanaka is at its melt temperature, i.e. above its glass transition temperature, when applied to the spine surface of the assembly of plural sheets at which time cooling is then performed as shown by Boss to form the book-like structure into a dimensionally stable, i.e. the adhesive is hardened which is considered a temperature below the glass transition temperature of the adhesive, structure such that it appears this limitation is intrinsically met. In the event it is shown the limitation is not necessarily intrinsic to Yamanaka as modified by Boss the following rejection would apply, it would have been obvious to one of ordinary skill in the art at the time the invention was made to perform Yamanaka as modified by Boss to cool the melted adhesive to its hardened temperature considered a temperature below the glass transition temperature of the adhesive from its melt temperature considered a temperature above the glass transition temperature of the adhesive to rapidly form a dimensionally stable book-like structure.

Regarding the limitation of at least the translatable first contacting surface has a leading edge adapted to contact a protruding end portion of the backed hot melt adhesive sheet, the translatable first contacting surface taught by Yamanaka has a leading edge which is suitable, i.e.

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adapted, for contacting a protruding end portion of the backed hot melt adhesive sheet such that the limitation is considered met.

5. Claims 32 and 33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yamanaka and Boss as applied above in paragraph 4, and further in view of Kuramoto et al. (U.S. Pre-Grant Publication 2002/0064437).

Yamanaka and Boss as applied above teach all of the limitations in claims 32 and 33 except for a teaching of attaching the backed hot melt adhesive sheet to the spine surface of the assembly of plural sheets by softening discrete points of the sheet by heating to a temperature above the glass transition temperature of the hot melt adhesive. Kuramoto et al. disclose a method of binding a plurality of sheets to form a book-like structure using a clamping apparatus. Kuramoto et al. teach the method comprises providing an assembly of plural sheets, contacting a hot melt adhesive sheet to a spine surface of the assembly of plural sheets, melting the hot melt adhesive sheet at discrete points to soften the sheet which is considered to include raising a temperature of the hot melt adhesive above a glass transition temperature of the adhesive, and tack the hot melt adhesive sheet to the spine to prevent displacement of the hot melt adhesive sheet during subsequent processing steps, and then bonding the hot melt adhesive sheet to the spine using a clamping apparatus including an active cooling means to form the book-like structure (Paragraphs 47, 49, and 50). It would have been obvious to one of ordinary skill in the art at the time the invention was made to include in Yamanaka as modified by Boss a step of tacking the backed hot melt adhesive sheet in discrete points to the spine of the assembly of plural sheets to prevent the backed hot melt adhesive sheet from displacing during clamping and complete bonding as shown by Kuramoto et al.

Response to Arguments

6. Applicant's arguments with respect to claims 26-28, 32, and 33 have been considered but are moot in view of the new ground(s) of rejection.

Applicant argues, "The leading edge 328, 330 of the clamping jaw 320 can be rounded, chamfered, equipped with guide elements or otherwise suitably configured to contact and slide along the surface 332 of the protruding end portion 308 (e.g., paragraph [0036]).".

The claims are not commensurate in scope with this argument as the claims only require "wherein at least the translatable first contacting surface has a leading edge adapted to contact a protruding end portion of the backed hot melt adhesive sheet".

Applicant further argues, "Rather, the side heaters 702, 703 as taught by the Yamanaka patent do not have a "leading edge", nor is there any suggestion of actively withdrawing heat from the backed hot melt adhesive sheet to bring a temperature of a hot melt adhesive of the backed hot melt adhesive sheet from above a glass transition temperature of the hot melt adhesive to below the glass transition temperature of the hot melt adhesive as Applicant has claimed.".

The translatable first contacting surface (702 of Figure 1) taught by Yamanaka has a leading edge, i.e. first contacting edge of the first contacting surface, suited, i.e. adapted, to contact the protruding end portion of the backed hot melt adhesive sheet.

Conclusion

7. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to **John L. Goff** whose telephone number is **(571) 272-1216**. The examiner can normally be reached on M-F (7:15 AM - 3:45 PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Crispino can be reached on (571) 272-1226. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



John L. Goff
Primary Examiner
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